

GENERAL INFORMATION

DRILIT®

Self-Drilling Screws

PRODUCT DESCRIPTION

Drilit® self-drilling fasteners eliminate separate drilling and tapping operations for faster, more economical installations.

GENERAL APPLICATIONS AND USES

- Steel Framing
- Steel Decking
- Purlins and Girt
- HVAC and Ductwork
- Fastening Accessories to Steel Framing
- Fastening Plywood Subfloor to Steel Framing

FEATURES AND BENEFITS

- + Eliminates separate drilling and tapping operations
- + Fasteners coated with Stalgard® typically show no red rust or other base metal corrosion on significant surfaces after 1000 hours of salt spray exposure in accordance with ASTM B117
- + Stalgard® coating provides improved corrosion resistance compared with fasteners with standard zinc plating
- + Screws with EPDM Bonded Sealing washers are available in multiple sizes and configurations for applications requiring a weather-tight seal
- + Fasteners coated with Stalgard® are compatible with ACQ-treated lumber with a maximum retention of 0.4 pcf and CA-B treated lumber with a maximum retention of 0.3 pcf

APPROVALS AND LISTINGS

- International Code Council, Evaluation Service (ICC-ES), ESR-3294
- International Code Council, Evaluation Service (ICC-ES), ESR-4367
- Code compliant with the International Building Code/International Residential Code: 2021 IBC/IRC, 2018 IBC/IRC, 2015 IBC/IRC, and 2012 IBC/IRC
- Tested in accordance with ICC-ES AC118 for use in Steel-to-Steel Connections
- Tested in accordance with ICC-ES AC500 for attaching Miscellaneous Building Materials to Steel
- City of Los Angeles, LABC & LARC Supplement (within ICC-ES evaluation reports)
- Florida Building Code Supplement including HVHZ (within ICC-ES evaluation reports)

GUIDE SPECIFICATIONS

05 05 23 - Metal Fastenings, 06 05 23 - Wood, Plastic and Composite Fastenings, 09 22 16.23 - Fasteners. Fasteners shall be Drilit self-drilling screws as supplied by DEWALT, Towson, MD. Fasteners shall be installed in accordance with published instructions and the Authority Having Jurisdiction.

MATERIAL SPECIFICATIONS

Fastener Component		Specification
Fastener		Case hardened carbon steel
Plating/Coating	Zinc	Zinc plating according to ASTM B633, SC1 Type III (Fe/Zn 5). Minimum plating requirements for Mild Service Condition
	Stalgard ¹	Stalgard coating 1,000 hour rating in ASTM B117 salt spray test
1. Stalgard is silver in color unless otherwise noted.		

SECTION CONTENTS

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FASTENER MATERIALS

- Carbon Steel

HEAD STYLES

- Hex Washer Head
- Pan Head
- Wafer Head
- Flat Head

DIAMETERS

- #6, #8, #10, #12
- 1/4", 5/16"

FINISH

- Stalgard®
- Zinc

DRILL POINT TYPES

- #1, #2, #3, #4, #4.5, #5

FASTENER STYLES

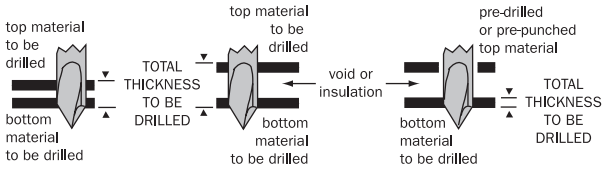
- Standard Drill Screws
- Drill Screws with Extended Drilling Capacity
- Drill Screws with Bonded Sealing Washer
- Drill Screws for Wood-to-Metal Applications

CODE LISTED ICC-ES ESR-3294 STEEL-TO-STEEL	CODE LISTED ICC-ES ESR-4367 WOOD-TO-STEEL
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INSTALLATION SPECIFICATIONS

Point Size Selection

Maximum Combined Material Thickness By Point Type



Maximum Recommended Installation RPM

Diameter	RPM
#6	2500
#8	
#10	
#12	1800
#12**	
1/4"	
5/16"	1200

** Applies to #12 diameter screws with point types 4, 4.5 and 5

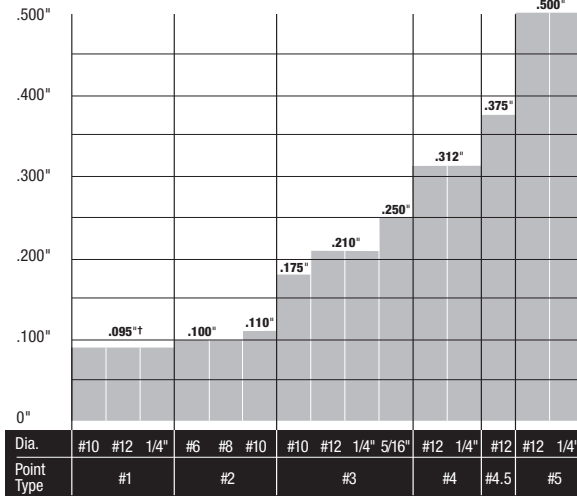
Nominal Sheet Metal Sizes

Gauge	Decimal (in.)
26	0.018
24	0.024
22	0.030
20	0.036
18	0.048
16	0.060
14	0.075
12	0.105

Nominal Screw Sizes

Thread Dia.	Decimal (in.)
#6	.138
#8	.164
#10	.190
#12	.216
1/4"	.250
5/16"	.3125

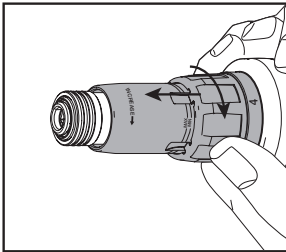
Drilling and Tapping Capacity (Maximum Material Thickness)*



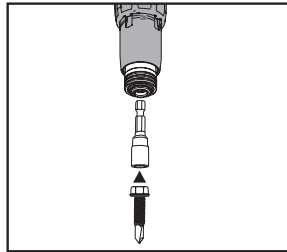
† Lapped panels: 18 ga. to 18 ga.

* NOTE: Some drill and tap capacities may vary due to special features on some fasteners. Refer to ordering and technical information for difference in drilling and tapping capacities for any individual fastener

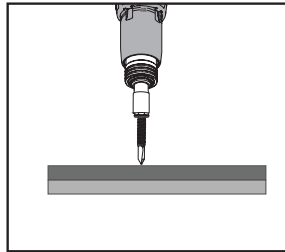
INSTALLATION PROCEDURES



Select a torque adjustable screwdriver that aligns with the recommended installation RPM's of the particular fastener (DeWALT VersaClutch Screwdrivers are recommended). Adjust the setting on the screwdriver so that the tool does not overdrive the fastener.

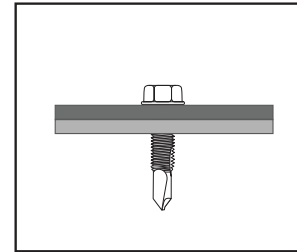


Attach an appropriate sized hex nut driver/ phillips bit to the screwdriver. Mount the screw fastener head into the driver.



Place the screw fastener against the work surface. While the screw fastener is in a perpendicular position, begin driving the screw fastener into the base material.

Note: The ideal speed and pressure will depend on the characteristics of the base material as well as the screw size and point type. A trial installation is suggested to determine the optimal tool setting, speed and pressure for the material and application.



Drive the screw fastener until the head of the screw is in contact and snug tight with the work surface and/or the material being fastened.

Minimum Screw Spacing and Edge Distance^{1,2}

Screw Diameter: d (in.)	Fastened Material (in.)	Minimum Spacing: 3d (in.)	Minimum Edge Distance: 1.5d (in.)	Minimum Edge Distance For Framing Members Under The 2018, 2015, and 2012 IBC: 3d (in.)
0.138 (#6)	Steel	7/16	7/32	7/16
0.164 (#8)	Steel	1/2	1/4	1/2
0.190 (#10)	Steel	9/16	5/16	9/16
0.216 (#12)	Steel	11/16	3/8	11/16
0.250 (1/4")	Steel	3/4	3/8	3/4
0.3125 (5/16")	Steel	15/16	1/2	15/16

1. For screws used in framing connections, when the spacing between screws is less than 3 times the nominal screws diameter, but at least 2 times the screw diameter, the allowable and design connection shear strength values must be reduced by 20 percent [Refer to Section B1.5.1.3 of AISI S240 (Section D1.5 of AISI S200 for the 2015 and 2012 IBC)].
2. For screws used in framing connections, when the edge is parallel to the direction of the applied force, the minimum edge distance may be 1.5 times the nominal screw diameter. [Refer to Section B1.5.1.3 of AISI S240 (Section D1.5 of AISI S200 for the 2015 and 2012 IBC)].

PERFORMANCE DATA

Fastener Strengths^{1,2,3,4,5,6,7}

Description	Tension (lbf)			Shear (lbf)			Minimum Torsional Strength (in-lbs)
	Ultimate	ASD	LRFD	Ultimate	ASD	LRFD	
#6-20	1,345	450	675	815	270	410	24
#8-18	1,615	535	805	1,100	365	550	42
#10-16	2,670	890	1,335	1,675	555	835	61
#10-24	2,635	875	1,315	1,570	520	785	65
#12-14	3,210	1,070	1,605	1,785	595	890	92
#12-24	3,550	1,180	1,775	2,185	725	1,090	100
1/4"-14	5,020	1,670	2,510	2,305	765	1,150	150
1/4"-20	5,190	1,730	2,595	2,980	990	1,490	168
5/16"-18	8,710	2,900	4,355	4,720	1,570	2,360	438

1. Ultimate strengths are based on laboratory tests.
2. Allowable (ASD) strengths are based on a safety factor, Ω, of 3.0 in accordance with ICC-ES AC118 and AISI S100-16.
3. Design (LRFD) strengths are based on a resistance factor, φ, of 0.50 in accordance with ICC-ES AC118 and AISI S100-16.
4. For ASD tension connections, the lower of the ASD tension strength, ASD pull-out strength and ASD pull-over strength must be used for design.
5. For LRFD tension connections, the lower of the LRFD tension strength, LRFD pull-out strength and LRFD pull-over strength must be used for design.
6. For ASD shear connections, the lower of the ASD Shear (Bearing) Capacity and the ASD Fastener Shear Strength must be used for design.
7. For LRFD shear connections, the lower of the LRFD Shear (Bearing) Capacity and the LRFD Fastener Shear Strength must be used for design.

Ultimate Shear (Bearing) Capacity of Screw Connections, lbf^{1,3}

Description	Point Type	Steel Thickness (Lapped Sheets/Bars)								
		26-26 Ga.	24-24 Ga.	22-22 Ga.	20-20 Ga.	18-18 Ga.	16-16 Ga.	14-14 Ga.	12-12 Ga.	1/8"-1/8"
#6-20	#2	170 ^[2]	260 ^[2]	365 ^[2]	480 ^[2]	740 ^[2]	-	-	-	-
#8-18	#2	300	500	540	740	1,045	-	-	-	-
#10-16	#1	400	585	670	880	1,330	-	-	-	-
#10-16	#3	200 ^[2]	460	520	730	1,250	1,520	1,670	-	-
#10-24	#2	200 ^[2]	305 ^[2]	430 ^[2]	565 ^[2]	865 ^[2]	-	-	-	-
#12-14	#1	435	715	760	1,030	1,545	-	-	-	-
#12-14	#3	210 ^[2]	325 ^[2]	455 ^[2]	775	1,360	1,620	1,970	1,990	-
#12-24	#4	-	-	-	-	-	1,430	1,930	2,455	2,570
#12-24	#4.5	-	-	-	-	-	1,385	1,920	2,170	2,255
#12-24	#5	-	-	-	-	-	1,350	1,825	2,150	2,225
1/4"-14	#1	515	860	890	1,300	1,770	-	-	-	-
1/4"-14	#3	225 ^[2]	350 ^[2]	490 ^[2]	930	1,445	2,100	2,580	2,650	-
1/4"-20	#5	-	-	-	-	-	1,655	2,275	-	3,210

1. Ultimate strengths are based on laboratory tests unless otherwise noted.
2. Ultimate strengths were calculated in accordance with AISI S100-16 based on steel with a minimum tensile strength of F_u = 45 ksi.
3. Ultimate load capacities must be reduced by a minimum safety factor to determine allowable loads (ASD) or by a load resistance factor to determine strength design capacities (LRFD).

Allowable (ASD) and Design (LRFD) Shear (Bearing) Capacity of Screw Connections, lbf^{1,2,3,4}

Description	Point Type	Material Thickness																	
		26-26 Ga.		24-24 Ga.		22-22 Ga.		20-20 Ga.		18-18 Ga.		16-16 Ga.		14-14 Ga.		12-12 Ga.		1/8"-1/8"	
		ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD
#6-20	#2	55	80	85	130	120	180	155	235	245	365	-	-	-	-	-	-	-	-
#8-18	#2	100	150	165	250	180	270	245	370	345	520	-	-	-	-	-	-	-	-
#10-16	#1	130	200	195	290	220	335	290	440	440	665	-	-	-	-	-	-	-	-
#10-16	#3	65	100	150	230	170	260	240	365	415	625	505	760	555	835	-	-	-	-
#10-24	#2	65	100	100	155	145	215	190	285	290	435	405	605	-	-	-	-	-	-
#12-14	#1	145	215	235	355	250	380	340	515	515	770	-	-	-	-	-	-	-	-
#12-14	#3	70	105	105	165	150	230	255	385	450	680	540	810	655	985	660	995	-	-
#12-24	#4	-	-	-	-	-	-	-	-	-	-	475	715	640	965	815	1,225	855	1,285
#12-24	#4.5	-	-	-	-	-	-	-	-	-	-	460	690	640	960	720	1,085	750	1,125
#12-24	#5	-	-	-	-	-	-	-	-	-	-	450	675	605	910	715	1,075	740	1,110
1/4"-14	#1	170	255	285	430	295	445	430	650	590	885	-	-	-	-	-	-	-	-
1/4"-14	#3	75	110	115	175	160	245	310	465	480	720	700	1,050	860	1,290	880	1,325	-	-
1/4"-20	#5	-	-	-	-	-	-	-	-	-	-	550	825	755	1,135	-	-	1,070	1,605

1. Allowable (ASD) strengths are based on a safety factor, Ω, of 3.0 in accordance with ICC-ES AC118 and AISI S100-16.
2. Design (LRFD) strengths are based on a resistance factor, φ, of 0.50 in accordance with ICC-ES AC118 and AISI S100-16.
3. For ASD shear connections, the lower of the ASD Shear (Bearing) Capacity and the ASD Fastener Shear Strength must be used for design.
4. For LRFD shear connections, the lower of the LRFD Shear (Bearing) Capacity and the LRFD Fastener Shear Strength must be used for design.

Ultimate Tension Pull-Out Capacity of Screw Connections, lbf^{1,3}

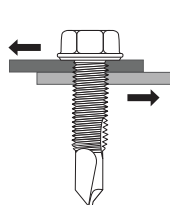
Description	Point Type	Thickness of Steel Not in Contact with Screw Head													
		26 Ga.	24 Ga.	22 Ga.	20 Ga.	18 Ga.	16 Ga.	14 Ga.	12 Ga.	0.12	1/8"	3/16"	1/4"	5/16"	3/8"
#6-20	#2	95 ⁽²⁾	125 ⁽²⁾	155 ⁽²⁾	190 ⁽²⁾	250 ⁽²⁾	315 ⁽²⁾	395 ⁽²⁾	-	-	-	-	-	-	-
#8-18	#2	120	195	265	300	490	700	960	-	-	-	-	-	-	-
#10-16	#1	150	240	315	360	565	825	1,090	-	-	-	-	-	-	-
#10-16	#2	130	205	270	300	420	550	660	1,125	-	-	-	-	-	-
#10-16	#3	130	205	270	300	420	550	660	1,125	-	-	-	-	-	-
#10-24	#2	130 ⁽²⁾	175 ⁽²⁾	220 ⁽²⁾	260 ⁽²⁾	345 ⁽²⁾	435 ⁽²⁾	545 ⁽²⁾	760 ⁽²⁾	-	-	-	-	-	-
#10-24	#3	130 ⁽²⁾	175 ⁽²⁾	220 ⁽²⁾	260 ⁽²⁾	345 ⁽²⁾	435 ⁽²⁾	545 ⁽²⁾	760 ⁽²⁾	-	-	-	-	-	-
#10-24	#3 w/wings	-	-	-	-	-	535	-	-	-	1,500	-	-	-	-
#12-14	#1	160	260	330	390	640	920	1,260	-	-	-	-	-	-	-
#12-14	#3	140	210	295	345	580	765	1,075	1,550	1,955	-	-	-	-	-
#12-24	#4 w/wings	-	-	-	-	585	-	-	-	-	1,605	-	2,085	-	-
#12-24	#4	-	-	-	310	450	495 ⁽²⁾	620 ⁽²⁾	865 ⁽²⁾	990 ⁽²⁾	1,415	3,235	3,770	-	-
#12-24	#4.5	-	-	-	310	450	495 ⁽²⁾	620 ⁽²⁾	865 ⁽²⁾	990 ⁽²⁾	1,415	3,235	3,770	-	4,125
#12-24	#5	-	-	-	310	450	495 ⁽²⁾	620 ⁽²⁾	865 ⁽²⁾	990 ⁽²⁾	1,415	3,235	3,770	-	4,125
1/4"-14	#1	225	340	430	570	800	1,165	-	-	-	-	-	-	-	-
1/4"-14	#3	150	235	300	340	700	890	1,160	1,795	2,120	-	-	-	-	-
1/4"-20	#4 w/wings	-	-	-	-	-	535	-	-	-	1,670	-	4,065	4,170	-
1/4"-20	#5	-	-	-	345 ⁽²⁾	460 ⁽²⁾	575 ⁽²⁾	720 ⁽²⁾	1,005 ⁽²⁾	1,150 ⁽²⁾	1,550	-	4,825	5,285	5,400
5/16"-18	#3	-	-	-	455	565	1,205	1,710	2,420	2,600	-	3,715	5,120	-	-

1. Ultimate strengths are based on laboratory tests unless otherwise noted.
2. Ultimate strengths were calculated in accordance with AISI S100-16 based on steel with a minimum tensile strength of $F_u = 45$ ksi.
3. Ultimate load capacities must be reduced by a minimum safety factor to determine allowable loads (ASD) or by a load resistance factor to determine strength design capacities (LRFD).

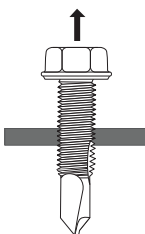
Allowable Tension Pull-Out Capacity of Screw Connections, lbf^{1,2}

Description	Point Type	Thickness of Steel Not in Contact with Screw Head													
		26 Ga.	24 Ga.	22 Ga.	20 Ga.	18 Ga.	16 Ga.	14 Ga.	12 Ga.	0.12	1/8"	3/16"	1/4"	5/16"	3/8"
#6-20	#2	30	40	50	60	80	105	115	-	-	-	-	-	-	-
#8-18	#2	40	65	85	100	160	230	320	-	-	-	-	-	-	-
#10-16	#1	50	80	105	120	185	275	360	-	-	-	-	-	-	-
#10-16	#2	40	65	90	100	140	180	220	375	-	-	-	-	-	-
#10-16	#3	40	65	90	100	140	180	220	375	-	-	-	-	-	-
#10-24	#2	40	55	70	85	115	145	180	250	-	-	-	-	-	-
#10-24	#3	40	55	70	85	115	145	180	250	-	-	-	-	-	-
#10-24	#3 w/wings	-	-	-	-	-	175	-	-	-	500	-	-	-	-
#12-14	#1	50	85	110	130	210	305	420	-	-	-	-	-	-	-
#12-14	#3	45	70	95	115	190	255	355	515	650	-	-	-	-	-
#12-24	#4 w/wings	-	-	-	-	-	195	-	-	-	535	-	695	-	-
#12-24	#4	-	-	-	100	150	165	205	290	330	470	1,075	1,255	-	-
#12-24	#4.5	-	-	-	100	150	165	205	290	330	470	1,075	1,255	-	1,375
#12-24	#5	-	-	-	100	150	165	205	290	330	470	1,075	1,255	-	1,375
1/4"-14	#1	75	110	140	190	265	385	-	-	-	-	-	-	-	-
1/4"-14	#3	50	75	100	110	230	295	385	595	705	-	-	-	-	-
1/4"-20	#4 w/wings	-	-	-	-	-	175	-	-	-	555	-	1,355	1,390	-
1/4"-20	#5	-	-	-	115	155	190	240	335	385	515	-	1,605	-	1,800
5/16"-18	#3	-	-	-	150	185	400	570	805	865	-	1,235	1,705	-	-

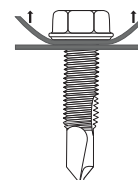
1. Allowable (ASD) strengths are based on a safety factor, Ω , of 3.0 in accordance with ICC-ES AC118 and AISI S100-16.
2. For ASD tension connections, the lower of the ASD tension strength, ASD pull-out strength and ASD pull-over strength must be used for design.



Shearing (Bearing)



Tension Pull-Out



Pull-Over

Design (LRFD) Tension Pull-Out Capacity Of Screw Connections, lbf^{1,2}

Description	Point Type	Thickness of Steel Not in Contact with Screw Head													
		26 Ga.	24 Ga.	22 Ga.	20 Ga.	18 Ga.	16 Ga.	14 Ga.	12 Ga.	0.12	1/8"	3/16"	1/4"	5/16"	3/8"
#6-20	#2	45	60	75	95	125	155	175	-	-	-	-	-	-	-
#8-18	#2	60	95	130	150	245	350	480	-	-	-	-	-	-	-
#10-16	#1	75	120	155	180	280	410	545	-	-	-	-	-	-	-
#10-16	#2	65	100	135	150	210	275	330	565	-	-	-	-	-	-
#10-16	#3	65	100	135	150	210	275	330	565	-	-	-	-	-	-
#10-24	#2	65	85	105	130	170	215	270	380	-	-	-	-	-	-
#10-24	#3	65	85	105	130	170	215	270	380	-	-	-	-	-	-
#10-24	#3 w/wings	-	-	-	-	-	265	-	-	-	750	-	-	-	-
#12-14	#1	80	130	165	195	320	460	630	-	-	-	-	-	-	-
#12-14	#3	70	105	145	170	290	380	535	775	975	-	-	-	-	-
#12-24	#4 w/wings	-	-	-	-	-	290	-	-	-	800	-	1,040	-	-
#12-24	#4	-	-	-	155	225	250	310	435	495	705	1,615	1,885	-	-
#12-24	#4.5	-	-	-	155	225	250	310	435	495	705	1,615	1,885	-	2,060
#12-24	#5	-	-	-	155	225	250	310	435	495	705	1,615	1,885	-	2,060
1/4"-14	#1	110	170	215	285	400	580	-	-	-	-	-	-	-	-
1/4"-14	#3	75	115	150	170	350	445	580	895	1,060	-	-	-	-	-
1/4"-20	#4 w/wings	-	-	-	-	-	265	-	-	-	835	-	2,030	2,085	-
1/4"-20	#5	-	-	-	170	230	285	360	500	575	775	-	2,410	-	2,700
5/16"-18	#3	-	-	-	225	280	600	855	1,210	1,300	-	1,855	2,560	-	-

1. Design (LRFD) strengths are based on a resistance factor, ϕ , of 0.50 in accordance with ICC-ES AC118 and AISI S100-16.
2. For LRFD tension connections, the lower of the LRFD tension strength, LRFD pull-out strength and LRFD pull-over strength must be used for design.

Ultimate, Allowable (ASD) And Design (LRFD) Pull-Over Capacity for Light Gauge Steel Framing with Screws^{1,2,3,4}

Fastener Description			Minimum Thickness of Steel or Framing Member in Contact with Screw Head														
			25 Gauge			22 Gauge			20 Gauge			18 Gauge			16 Gauge		
			Ult.	ASD	LRFD	Ult.	ASD	LRFD	Ult.	ASD	LRFD	Ult.	ASD	LRFD	Ult.	ASD	LRFD
Drilit®	#6-20	1/4" Hex Washer Head	445	150	225	635	210	320	765	255	385	1,015	340	510	1,270	425	635
Drilit®	#8-18	1/4" Hex Washer Head	475	160	240	675	225	340	810	270	405	1,080	360	540	1,350	450	675
Drilit®	#10-16	5/16" Hex Washer Head	565	190	285	805	270	405	965	320	485	1,285	430	645	1,610	535	805
Drilit®	#12-24	5/16" Hex Washer Head	585	195	295	840	280	420	1,005	335	505	1,340	445	670	1,675	560	840
Drilit®	1/4"-14	5/16" Hex Washer Head	585	195	295	840	280	420	1,005	335	505	1,340	445	670	1,675	560	840
Drilit®	1/4"-14	3/8" Hex Washer Head	705	235	355	1,010	335	505	1,210	405	605	1,615	540	810	2,020	675	1,010
Drilit®	1/4"-14	3/8" Hex Oversized Washer Head	950	315	475	1,360	455	680	1,635	545	820	2,180	725	1,090	2,725	910	1,365
Drilit®	1/4"-20	3/8" Hex Washer Head	840	280	420	1,200	400	600	1,440	480	720	1,920	640	960	2,400	800	1,200
Drilit®	5/16"-18	3/8" Hex Washer Head	840	280	420	1,200	400	600	1,440	480	720	1,920	640	960	2,400	800	1,200
Drilit® with Bonded Sealing Washer	#8-18	1/4" Hex Washer Head	605	200	305	675	225	340	810	270	405	1,080	360	540	1,350	450	675
Drilit® with Bonded Sealing Washer	#10-16	5/16" Hex Washer Head	695	230	350	805	270	405	965	320	485	1,285	430	645	1,610	535	805
Drilit® with Bonded Sealing Washer	#12-24	5/16" Hex Washer Head	715	240	360	840	280	420	1,005	335	505	1,340	445	670	1,675	560	840
Drilit® with Bonded Sealing Washer	1/4"-14	5/16" Hex Washer Head	715	240	360	840	280	420	1,005	335	505	1,340	445	670	1,675	560	840
Drilit® with Bonded Sealing Washer	1/4"-14	3/8" Hex Washer Head	705	235	355	1,010	335	505	1,210	405	605	1,615	540	810	2,020	675	1,010
Drilit® Flo-Seal®	#12-14	5/16" Flo-Seal	630	210	315	715	240	360	860	285	430	1,145	380	575	1,435	480	720

1. Tabulated pull-over strengths were calculated in accordance with AISI S100-16. Allowable (ASD) and Design (LRFD) strengths are based on a safety factor, Ω , and resistance factor, ϕ , of 3.0 and 0.50 respectively, in accordance with AISI S100-16
2. For ASD tension connections, the lower of the ASD tension strength, ASD pull-out strength and ASD pull-over strength must be used for design.
3. For LRFD tension connections, the lower of the LRFD tension strength, LRFD pull-out strength and LRFD pull-over strength must be used for design.
4. Values are based on steel with a minimum tensile strength of $F_u = 45$ ksi.

ORDERING INFORMATION

SCREW FASTENERS

DRILIT®
Self-Drilling Screws

Drilit® Standard Drill Screws

Cat. No.	Description (Diameter - TPI x Nominal Length)	Point Type	Finish	Maximum Load Bearing Length ¹ (in.)	Minimum Protrusion Length ²	Nominal Head Diameter ³ (in.)	Nominal Head Height ⁴ (in.)	Qty / Carton	Qty / Case
#6 DIAMETER, 1/4" HEX WASHER HEAD									
DFSEDA160-100	#6 - 20 x 3/4"	#2	ZINC	0.406	11/32"	0.315	0.110	100	1000
DFSEDA190-100	#6 - 20 x 1"	#2	ZINC	0.656	11/32"	0.315	0.110	100	1000
#8 DIAMETER, 1/4" HEX WASHER HEAD									
DFSEDA236	#8 - 18 x 1/2"	#2	STALGARD®	0.125	3/8"	0.335	0.130	10000	-
DFSEDA250-100	#8 - 18 x 5/8"	#2	ZINC	0.250	3/8"	0.335	0.130	100	1000
DFSEDA260-100	#8 - 18 x 3/4"	#2	ZINC	0.375	3/8"	0.335	0.130	100	1000
DFSEDA261	#8 - 18 x 3/4"	#2	STALGARD®	0.375	3/8"	0.335	0.130	8000	-
DFSEDA285-100	#8 - 18 x 1"	#2	ZINC	0.625	3/8"	0.335	0.130	100	1000
DFSEDA286	#8 - 18 x 1"	#2	STALGARD®	0.625	3/8"	0.335	0.130	5000	-
DFSEDA290-100	#8 - 18 x 1-1/4"	#2	ZINC	0.875	3/8"	0.335	0.130	100	1000
DFSEDA295-100	#8 - 18 x 1-1/2"	#2	ZINC	1.125	3/8"	0.335	0.130	100	1000
#8 DIAMETER, #2 PHILLIPS PAN HEAD									
DFSEDD266	#8 - 18 x 3/4"	#2	STALGARD®	0.375	3/8"	0.315	0.110	10000	-
#10 DIAMETER, 5/16" HEX WASHER HEAD									
DFSEDB401	#10 - 16 x 1/2"	#2	STALGARD®	0.094	13/32"	0.400	0.185	5000	-
DFSEDB426	#10 - 16 x 5/8"	#3	STALGARD®	0.125	1/2"	0.400	0.185	6000	-
DFSEDC450	#10 - 16 x 3/4"	#1	STALGARD®	0.188	9/16"	0.400	0.185	5000	-
DFSEDB445-100	#10 - 16 x 3/4"	#3	ZINC	0.250	1/2"	0.400	0.185	100	1000
DFSEDB446	#10 - 16 x 3/4"	#3	STALGARD®	0.250	1/2"	0.400	0.185	6000	-
DFSEDB485-100	#10 - 16 x 1"	#3	ZINC	0.500	1/2"	0.400	0.185	100	1000
DFSEDB486	#10 - 16 x 1"	#3	STALGARD®	0.500	1/2"	0.400	0.185	5000	-
DFSEDB540-100	#10 - 16 x 1-1/2"	#3	ZINC	1.000	1/2"	0.400	0.170	100	1000
DFSEDB541	#10 - 16 x 1-1/2"	#3	STALGARD®	1.000	1/2"	0.400	0.185	3000	-
DFSEDB571	#10 - 16 x 2"	#3	STALGARD®	1.500	1/2"	0.400	0.185	2000	-
#10 DIAMETER, 5/16" HEX WASHER HEAD WITH SERRATIONS									
DFSEFC460	#10 - 16 x 3/4"	#3	ZINC	0.250	1/2"	0.400	0.215	6000	-
#12 DIAMETER, 5/16" HEX WASHER HEAD									
DFSEDC745	#12 - 14 x 3/4"	#1	STALGARD®	0.188	9/16"	0.415	0.180	5000	-
DFSEDB740-100	#12 - 14 x 3/4"	#3	ZINC	0.188	9/16"	0.415	0.180	100	1000
DFSEDB741	#12 - 14 x 3/4"	#3	STALGARD®	0.188	9/16"	0.415	0.180	5000	-
DFSEDB760-100	#12 - 14 x 1"	#3	ZINC	0.438	9/16"	0.415	0.180	100	1000
DFSEDB761	#12 - 14 x 1"	#3	STALGARD®	0.438	9/16"	0.415	0.180	4000	-
DFSEDB782	#12 - 14 x 1-1/4"	#3	STALGARD®	0.688	9/16"	0.415	0.180	3000	-
DFSEDB800-050	#12 - 14 x 1-1/2"	#3	ZINC	0.938	9/16"	0.415	0.180	50	500
DFSEDB801	#12 - 14 x 1-1/2"	#3	STALGARD®	1.438	9/16"	0.415	0.180	2500	-
DFSEDB820-050	#12 - 14 x 2"	#3	ZINC	1.438	9/16"	0.415	0.180	50	500
DFSEDB821	#12 - 14 x 2"	#3	STALGARD®	1.438	9/16"	0.415	0.180	2000	-
DFSEDB830	#12 - 14 x 2-1/2"	#3	STALGARD®	1.938	9/16"	0.415	0.180	1500	-
DFSEDB840	#12 - 14 x 3"	#3	STALGARD®	2.438	9/16"	0.415	0.180	1000	-
DFSEDB845	#12 - 14 x 4"	#3	STALGARD®	3.438	9/16"	0.415	0.180	500	-

1. The Maximum Load Bearing Length is calculated by subtracting the Minimum Protrusion Length from the Nominal Length of the fastener.
2. Minimum Protrusion Length is the length that allows the tip and three full threads to protrude out of the back side of the supporting material.
3. Nominal Head Diameter is the diameter of the integral washer on hex washer head fasteners.
4. Nominal Head Height Includes the thickness of the Integral washer on hex washer head fasteners.

Drilit® Standard Drill Screws, Continued

Cat. No.	Description (Diameter - TPI x Nominal Length)	Point Type	Finish	Maximum Load Bearing Length ¹ (in.)	Minimum Protrusion Length ²	Nominal Head Diameter ³ (in.)	Nominal Head Height ⁴ (in.)	Qty / Carton	Qty / Case
1/4" DIAMETER, 5/16" HEX WASHER HEAD									
DFSEDC930	1/4" - 14 x 7/8	#1	STALGARD®	0.313	9/16"	0.415	0.180	4000	-
1/4" DIAMETER, 3/8" HEX WASHER HEAD									
DFSEDB935-100	1/4" - 14 x 3/4"	#3	ZINC	0.125	5/8"	0.500	0.230	100	1000
DFSEDB936	1/4" - 14 x 3/4"	#3	STALGARD®	0.125	5/8"	0.500	0.230	3500	-
DFSEDB945	1/4" - 14 x 1"	#3	ZINC	0.375	5/8"	0.500	0.230	3000	-
DFSEDB946	1/4" - 14 x 1"	#3	STALGARD®	0.375	5/8"	0.500	0.230	3000	-
DFSEDB955-050	1/4" - 14 x 1-1/4"	#3	ZINC	0.625	5/8"	0.500	0.230	50	500
DFSEDB956	1/4" - 14 x 1-1/4"	#3	STALGARD®	0.625	5/8"	0.500	0.230	2000	-
DFSEDB960-050	1/4" - 14 x 1-1/2"	#3	ZINC	0.875	5/8"	0.500	0.230	50	500
DFSEDB961	1/4" - 14 x 1-1/2"	#3	STALGARD®	0.875	5/8"	0.500	0.230	2000	-
DFSEDB970-050	1/4" - 14 x 2"	#3	ZINC	1.375	5/8"	0.500	0.230	50	500
DFSEDB971	1/4" - 14 x 2"	#3	STALGARD®	1.375	5/8"	0.500	0.230	1500	-
DFSEDB975-025	1/4" - 14 x 2-1/2"	#3	ZINC	1.875	5/8"	0.500	0.230	25	250
DFSEDB976	1/4" - 14 x 2-1/2"	#3	STALGARD®	1.875	5/8"	0.500	0.230	1000	-
DFSEDB981	1/4" - 14 x 3"	#3	STALGARD®	2.375	5/8"	0.500	0.230	800	-
DFSEDB983	1/4" - 14 x 4"	#3	STALGARD®	3.375	5/8"	0.500	0.230	500	-
1/4" DIAMETER, 3/8" HEX OVERSIZED (11/16") WASHER HEAD									
DFSEDB947	1/4" - 14 x 1"	#3	ZINC	0.375	5/8"	0.675	0.230	2000	-
5/16" DIAMETER, 3/8" HEX WASHER HEAD									
DFSEDB990-010	5/16" - 18 x 1"	#3	ZINC	0.250	3/4"	0.600	0.270	10	100
DFSEDB991	5/16" - 18 x 1"	#3	STALGARD®	0.250	3/4"	0.600	0.270	1000	-
DFSEDB994	5/16" - 18 x 1-1/4"	#3	STALGARD®	0.500	3/4"	0.600	0.270	1000	-
DFSEDB998	5/16" - 18 x 1-1/2"	#3	STALGARD®	0.750	3/4"	0.600	0.270	1000	-
<ol style="list-style-type: none"> The Maximum Load Bearing Length is calculated by subtracting the Minimum Protrusion Length from the Nominal Length of the fastener. Minimum Protrusion Length is the length that allows the tip and three full threads to protrude out of the back side of the supporting material. Nominal Head Diameter is the diameter of the integral washer on hex washer head fasteners. Nominal Head Height Includes the thickness of the Integral washer on hex washer head fasteners. 									

Drilit® Drill Screws with Extended Drilling Capacity

Cat. No.	Description (Diameter - TPI x Nominal Length)	Point Type	Finish	Maximum Load Bearing Length ¹ (in.)	Minimum Protrusion Length ²	Nominal Head Diameter ³ (in.)	Nominal Head Height ⁴ (in.)	Qty / Carton	Qty / Case
#12 DIAMETER, 5/16" HEX WASHER HEAD									
DFSEDC801	#12 - 24 x 7/8"	#4	STALGARD®	0.250	5/8"	0.415	0.185	4500	-
DFSEDC816	#12 - 24 x 1-1/4"	#4.5	STALGARD®	0.500	3/4"	0.415	0.185	3500	-
DFSECC720	#12 - 24 x 1-1/4"	#5	STALGARD®	0.344	29/32"	0.415	0.185	4000	-
DFSECC720-100	#12 - 24 x 1-1/4"	#5	STALGARD®	0.344	29/32"	0.415	0.185	100	1000
DFSEDC846	#12 - 24 x 1-1/2"	#4.5	STALGARD®	0.750	3/4"	0.415	0.185	2500	-
DFSECC740	#12 - 24 x 1-1/2"	#5	STALGARD®	0.594	29/32"	0.415	0.185	2500	-
DFSECC750	#12 - 24 x 2"	#5	STALGARD®	1.094	29/32"	0.415	0.185	2000	-
1/4" DIAMETER, 5/16" HEX WASHER HEAD									
DFSECC940	1/4" - 20 x 3"	#5	STALGARD®	1.938	1-1/16"	0.415	0.185	1000	-
DFSECC950 ^[5]	1/4" - 20 x 4"	#5	STALGARD®	2.938	1-1/16"	0.415	0.185	500	-
1/4" DIAMETER, 3/8" HEX WASHER HEAD									
DFSECC960 ^[5]	1/4" - 20 x 5"	#5	STALGARD®	3.938	1-1/16"	0.595	0.230	500	-
DFSECC970 ^[5]	1/4" - 20 x 6"	#5	STALGARD®	4.938	1-1/16"	0.595	0.230	500	-
DFSECC980 ^[5]	1/4" - 20 x 8"	#5	STALGARD®	6.938	1-1/16"	0.595	0.230	150	-
<ol style="list-style-type: none"> The Maximum Load Bearing Length is calculated by subtracting the Minimum Protrusion Length from the Nominal Length of the fastener. Minimum Protrusion Length is the length that allows the tip and three full threads to protrude out of the back side of the supporting material. Nominal Head Diameter is the diameter of the integral washer on hex washer head fasteners. Nominal Head Height Includes the thickness of the Integral washer on hex washer head fasteners. Partially threaded fastener with a thread length of 3.00". 									

Drilit® Drill Screws with Bonded Sealing Washer

Cat. No.	Description (Diameter - TPI x Nominal Length)	Point Type	Finish	Maximum Load Bearing Length ¹ (in.)	Minimum Protrusion Length ² (in.)	Nominal EPDM Washer Outer Dia.	Nominal Head Height ³ (in.)	Qty / Carton	Qty / Case
#8 DIAMETER, 1/4" HEX WASHER HEAD									
DFSEHL100-050	#8 - 18 x 3/4"	#2	ZINC	0.300	3/8"	1/2"	0.205	50	500
#10 DIAMETER, 5/16" HEX WASHER HEAD									
DFSEHL111	#10 - 16 x 3/4"	#3	STALGARD®	0.175	1/2"	1/2"	0.260	3000	-
DFSEHL112-100	#10 - 16 x 3/4"	#3	ZINC	0.175	1/2"	1/2"	0.260	100	1000
DFSEHL146	#10 - 16 x 1-1/2"	#3	STALGARD®	0.925	1/2"	1/2"	0.260	2000	-
#12 DIAMETER, 5/16" HEX WASHER HEAD									
DFSEHL165	#12 - 14 x 3/4"	#3	STALGARD®	0.113	9/16"	9/16"	0.255	3000	-
DFSEHL180-100	#12 - 14 x 1"	#3	ZINC	0.363	9/16"	9/16"	0.255	100	1000
DFSEHL181	#12 - 14 x 1"	#3	STALGARD®	0.363	9/16"	9/16"	0.255	2500	-
DFSEHL235	#12 - 14 x 1-1/4"	#3	STALGARD®	0.613	9/16"	9/16"	0.255	2000	-
DFSEHL371	#12 - 24 x 1-1/4"	#4.5	STALGARD®	0.425	3/4"	9/16"	0.255	2500	-
DFSECW725	#12 - 24 x 1-1/4"	#5	STALGARD®	0.269	29/32"	9/16"	0.255	2500	-
DFSEHL276	#12 - 14 x 1-1/2"	#3	STALGARD®	0.863	9/16"	9/16"	0.255	2000	-
DFSECW745	#12 - 24 x 1-1/2"	#5	STALGARD®	0.519	29/32"	9/16"	0.255	2000	-
DFSEHL280	#12 - 14 x 2"	#3	STALGARD®	1.300	9/16"	9/16"	0.255	1500	-
DFSECW755	#12 - 24 x 2"	#5	STALGARD®	1.019	29/32"	9/16"	0.255	1000	-
DFSEHL285	#12 - 14 x 2-1/2"	#3	STALGARD®	1.863	9/16"	9/16"	0.255	1000	-
DFSEHL295	#12 - 14 x 3"	#3	STALGARD®	2.363	9/16"	9/16"	0.255	1000	-
DFSEHL310	#12 - 14 x 4"	#3	STALGARD®	3.363	9/16"	9/16"	0.255	500	-
1/4" DIAMETER, 5/16" HEX WASHER HEAD									
DFSEHK315	1/4" - 14 x 7/8"	#1	STALGARD®	0.238	9/16"	9/16"	0.255	2500	-
1/4" DIAMETER, 3/8" HEX WASHER HEAD									
DFSEHL530	1/4" - 14 x 1"	#3	STALGARD®	0.300	5/8"	5/8"	0.305	2000	-
DFSEHL556	1/4" - 14 x 1-1/4"	#3	STALGARD®	0.550	5/8"	5/8"	0.305	1500	-
DFSEHL577	1/4" - 14 x 1-1/2"	#3	STALGARD®	0.800	5/8"	5/8"	0.305	1500	-
DFSEHL585	1/4" - 14 x 2"	#3	STALGARD®	1.300	5/8"	5/8"	0.305	1000	-
DFSEHL600	1/4" - 14 x 3"	#3	STALGARD®	2.300	5/8"	5/8"	0.305	800	-
DFSEHL610	1/4" - 14 x 4"	#3	STALGARD®	3.300	5/8"	5/8"	0.305	500	-
<ol style="list-style-type: none"> Length of Load Bearing Area is calculated by subtracting the Minimum Protrusion Length and thickness of the installed washer (.075") from the Nominal Length of the fastener. Minimum Protrusion Length is the length that allows the tip and three full threads to protrude out of the back side of the supporting material. Nominal Head Height includes the thickness of the EPDM sealing washer when installed. 									

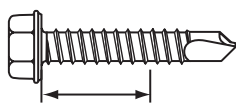


Drilit® Self-Drilling Screws for Wood-to-Metal Applications¹

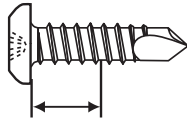
Cat. No.	Description (Diameter - TPI x Nominal Length)	Point Type	Finish	Typical Wood Thick	Drilling Capacity (min-max in steel)	Maximum Load Bearing Length ² (in.)	Minimum Protrusion Length ²	Nominal Head Diameter (in.)	Qty / Carton	Qty / Case
#10 DIAMETER, #2 PHILLIPS WAFFER HEAD										
DFSEDM582	10 - 24 x 3/4"	#3	STALGARD®	1/4"	.036"-.187"	0.313	7/16"	0.470	8000	-
DFSEDM592	10 - 24 x 1"	#3	STALGARD®	1/2"	.036"-.187"	0.563	7/16"	0.470	6000	-
DFSEDM607	10 - 24 x 1-1/4"	#3	STALGARD®	5/8"	.036"-.187"	0.813	7/16"	0.470	5000	-
DFSEDM607-100	10 - 24 x 1-1/4"	#3	STALGARD®	5/8"	.036"-.187"	0.813	7/16"	0.470	1000	-
DFSEDT602	10 - 24 x 1-7/16"	#3 w/wings	STALGARD®	3/4"	.036"-.187"	0.813	5/8"	0.470	4000	-
DFSEDM622	10 - 16 x 1-1/2"	#3	STALGARD®	3/4"	.036"-.187"	1.000	1/2"	0.470	3500	-
DFSEDM635	10 - 16 x 1-13/16"	#3 w/pilot	STALGARD®	3/4"	.036"-.150"	0.750	1-1/16"	0.470	2500	-
#12 DIAMETER, #3 PHILLIPS WAFFER HEAD										
DFSEDT720	12 - 24 x 1-3/4"	#4 w/wings	STALGARD®	3/4"	.060"-.312"	0.813	15/16"	0.540	2000	-
#12 DIAMETER, #3 PHILLIPS FLAT HEAD										
DFSEDT267	12 - 24 x 2-1/4"	#4 w/wings	STALGARD®	1-1/4"	.060"-.312"	1.313	15/16"	0.480	2000	-
DFSEDT282	12 - 24 x 2-3/4"	#4 w/wings	STALGARD®	1-5/8"	.060"-.312"	1.813	15/16"	0.480	1500	-
1/4" DIAMETER, #3 PHILLIPS FLAT HEAD										
DFSEDT442	1/4 - 20 x 3"	#4 w/wings	STALGARD®	2"	.060"-.312"	2.000	1"	0.485	1000	-
DFSEDT470 ³	1/4 - 20 x 4"	#4 w/wings	STALGARD®	3"	.060"-.312"	3.000	1"	0.485	1000	-

1. The Maximum Load Bearing Length is calculated by subtracting the Minimum protrusion length from the Nominal Length of the fastener
2. Minimum Protrusion Length is the length that allows the tip and three full threads to protrude out of the back side of the supporting material
3. Partially threaded fastener with a thread length of 2.20"
4. Drilit self-drilling screws for wood-to-metal applications are coated with a gray stalgard coating.

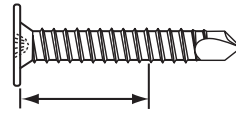
Load Bearing Length



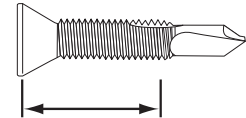
Hex Washer Head



Pan Head



Wafer Head



Flat Head

Screwguns

Cat. No.	Qty / Carton	Qty / Case
DW268	2,500 RPM VSR VERSA-CLUTCH™ Screwgun	#6 - #10
DW267	2,000 RPM VSR VERSA-CLUTCH™ Screwgun	#12 & 1/4"
DW269	1,000 RPM VSR VERSA-CLUTCH™ Screwgun	5/16"
DCF622M2	20V MAX* XR® VERSA-CLUTCH™ Adjustable Torque Screwgun Kit	#6 - 1/4"



For 20V MAX Maximum initial battery voltage measured without a workload is 20 volts. Nominal voltage is 18.
Drilit® Self-Drilling Screws must be installed perpendicular to the work surface using a maximum 2500 RPM screw gun with a torque sensing nose piece.
Guidance on the installation RPM of particular screw diameters can be found on in the Installation Specifications.

Impact tools are not recommended for the installation of self-drilling screws.

Accessories

Cat. No.	Qty / Carton
DWA3HLDFT	3IN IMPACT READY® HOLDER
DWA1PH2IR2	#2 Phillips Bit Tip (2 Pack)
DWA1PH3IR2	#3 Phillips Bit Tip (2 Pack)
DW2221IR	1/4" x 2-9/16" IMPACT READY® MAGNETIC NUT DRIVER
DW2222IR	5/16" x 2-9/16" IMPACT READY® MAGNETIC NUT DRIVER
DW2223IR	3/8" x 2-9/16" IMPACT READY® MAGNETIC NUT DRIVER
DWANGFT32SET	32 PIECE NEXT GEN IR FLEX TORQ SET
DWANGFT26SET	26 PIECE NEXT GEN IR FLEX TORQ SET

